

Title (en)

TRANSISTOR STRUCTURE WITH VARIABLE CLAD/CORE DIMENSION FOR STRESS AND BAND GAP MODULATION

Title (de)

TRANSISTORSTRUKTUR MIT VARIABLER MANTEL-/KERNGRÖSSE FÜR BELASTUNGS- UND BANDLÜCKENMODULATION

Title (fr)

STRUCTURE DE TRANSISTOR À DIMENSION GAINE/C UR VARIABLE POUR MODULATION DES CONTRAINTES ET DE LA BANDE INTERDITE

Publication

EP 3050113 A4 20170524 (EN)

Application

EP 13894617 A 20130927

Priority

US 2013062468 W 20130927

Abstract (en)

[origin: WO2015047349A1] An apparatus including a heterostructure disposed on a substrate and defining a channel region, the heterostructure including a first material having a first band gap less than a band gap of a material of the substrate and a second material having a second band gap that is greater than the first band gap; and a gate stack on the channel region, wherein the second material is disposed between the first material and the gate stack. A method including forming a first material having a first band gap on a substrate; forming a second material having a second band gap greater than the first band gap on the first material; and forming a gate stack on the second material.

IPC 8 full level

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CPC (source: EP KR US)

H01L 29/0665 (2013.01 - US); **H01L 29/0673** (2013.01 - EP US); **H01L 29/068** (2013.01 - EP US); **H01L 29/1054** (2013.01 - EP KR US); **H01L 29/16** (2013.01 - US); **H01L 29/165** (2013.01 - EP US); **H01L 29/20** (2013.01 - US); **H01L 29/42392** (2013.01 - EP US); **H01L 29/512** (2013.01 - EP US); **H01L 29/66439** (2013.01 - EP KR US); **H01L 29/66568** (2013.01 - US); **H01L 29/775** (2013.01 - EP KR US); **H01L 29/778** (2013.01 - EP KR US); **H01L 29/7842** (2013.01 - EP KR US); **H01L 29/78696** (2013.01 - EP US)

Citation (search report)

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- [XY] US 2010252800 A1 20101007 - CHIDAMBARRAO DURESETI [US], et al
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Designated contracting state (EPC)

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